AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-76 (Canceled).

77. (Previously Presented) A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area;

extracting said at least one analyte through said area of skin by application of a transport force to said area;

receiving said at least one analyte in a sensing zone in communication with said area; and

continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone;

wherein said transport force is selected from the group consisting of physical forces, chemical forces, biological forces, vacuum, electrical forces, osmotic forces, diffusion forces, electro-magnetic forces, ultrasound forces, cavitation forces, mechanical forces, thermal forces, capillary forces, fluid circulation across the skin, electro-acoustic forces, magnetic forces, magneto-hydrodynamic forces, acoustic forces, convective dispersion, photo acoustic forces, by rinsing body fluid off skin, and any combination thereof; and

wherein a material is placed between said vacuum force and said skin in order to maintain a surface configuration of said skin.

78. (Original) The method of claim 77, wherein said material is selected from the group consisting of mesh, membrane, and perforated metal.

79. (Original) The method of claim 77, wherein said vacuum force is generated by a device selected from the group consisting of mechanical, electro-mechanical, chemical, or electro-chemical.

80. (Currently Amended) ~~The method of claim 74, wherein said electrical force is selected from the group consisting of iontophoretic, electro-osmotic, and electroporation.~~ A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area, said low frequency ultrasound forces having a frequency of less than 2.5 MHz;

extracting said at least one analyte through said area of skin by application of a transport force to said area, wherein said transport force is electrical force, wherein said electrical force is selected from the group consisting of iontophoretic forces, electro-osmotic forces, electroporation forces, or combinations thereof;

receiving said at least one analyte in a sensing zone in communication with said area; and

monitoring changes in the analyte concentration of the body fluid by continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone.

81. (Currently Amended) ~~The method of claim 74,~~A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area, said low frequency ultrasound forces having a frequency of less than 2.5 MHz;

extracting said at least one analyte through said area of skin by application of a transport force to said area, wherein said transport force is selected from the group consisting of physical forces, chemical forces, biological forces, vacuum, electrical forces, osmotic forces, diffusion forces, electro-magnetic forces, ultrasound forces, cavitation forces, mechanical forces, thermal forces, capillary forces, fluid circulation

across the skin, electro-acoustic forces, magnetic forces, magneto-hydrodynamic forces, acoustic forces, convective dispersion, photo acoustic forces, by rinsing body fluid off skin, and any combination thereof;

receiving said at least one analyte in a sensing zone in communication with said area; and

monitoring changes in the analyte concentration of the body fluid by continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone, wherein a gel is applied to said skin in order to encourage osmosis.

82-88 (Canceled).

89. (Previously Presented) A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area;

extracting said at least one analyte through said area of skin by application of a transport force to said area;

receiving said at least one analyte in a sensing zone in communication with said area; and

continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone;

wherein said transport force is selected from the group consisting of physical forces, chemical forces, biological forces, vacuum, electrical forces, osmotic forces, diffusion forces, electro-magnetic forces, ultrasound forces, cavitation forces, mechanical forces, thermal forces, capillary forces, fluid circulation across the skin, electro-acoustic forces, magnetic forces, magneto-hydrodynamic forces, acoustic forces, convective dispersion, photo acoustic forces, by rinsing body fluid off skin, and any combination thereof; and

wherein temperature sensitive polymers are used to extract said at least one analyte.

90. (Canceled)

91. (Currently Amended) ~~The method of claim 90, wherein said absorption method comprises said at least one analyte into a gel~~ A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area, said low frequency ultrasound forces having a frequency of less than 2.5 MHz;

extracting said at least one analyte through said area of skin by application of a transport force to said area;

receiving said at least one analyte in a sensing zone in communication with said area, wherein said step of receiving said at least one analyte comprises absorption, wherein said absorption method comprises absorbing said at least one analyte into a gel; and

monitoring changes in the analyte concentration of the body fluid by continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone.

92. (Original) The method of claim 91, wherein said gel contains a captive enzyme.

93. (Previously Presented) A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area;

extracting said at least one analyte through said area of skin by application of a transport force to said area;

receiving said at least one analyte in a sensing zone in communication with said area; and

continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone;

wherein said step of receiving said at least one analyte comprises using a method selected from the group consisting of absorption, adsorption, phase separation, mechanical, electrical, chemically induced, capillary forces, and a combination thereof; and

wherein said phase separation method comprises isolating said at least one analyte with an appropriate density immiscible fluid.

94. (Previously Presented) The method of claim 93, further comprising receiving said at least one analyte into a conical chamber.

95-97. (Canceled)

98. (Currently Amended) ~~The method of claim 90, wherein said electrical method comprises moving a charged object from said skin to a receiving compartment using electrical forces.~~ A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area, said low frequency ultrasound forces having a frequency of less than 2.5 MHz;

extracting said at least one analyte through said area of skin by application of a transport force to said area;

receiving said at least one analyte in a sensing zone in communication with said area, wherein said step of receiving said at least one analyte comprises using an electrical method, wherein said electrical method comprises moving a charged object from said skin to a receiving compartment using electrical forces; and

monitoring changes in the analyte concentration of the body fluid by continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone.

99. (Canceled)

100. (Previously Presented) A method for analysis of at least one analyte in a body fluid, comprising:

increasing a permeability level of an area of skin by applying low frequency ultrasound forces to said area;

extracting said at least one analyte through said area of skin by application of a transport force to said area;

receiving said at least one analyte in a sensing zone in communication with said area; and

continuously determining the quantity of said at least one analyte in said body fluid in said sensing zone;

wherein said step of receiving said at least one analyte comprises using a method selected from the group consisting of absorption, adsorption, phase separation, mechanical, electrical, chemically induced, capillary forces, and a combination thereof; and

wherein said capillary collection method comprises:

filling at least one capillary with a plurality of fibers; and

receiving said at least one analyte in said at least one capillary.

101-157. (Canceled).